Title (en)

REDUNDANT RECIPROCAL TRACKING SYSTEM

Title (de)

REDUNDANTES REZIPROKES VERFOLGUNGSSYSTEM

Title (fr)

SYSTÈME DE SUIVI RÉCIPROQUE REDONDANT

Publication

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Application

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- IB 2016051242 W 20160304

Abstract (en)

The present invention relates to a redundant reciprocal tracking system composed of at least two trackers 10. A first tracker is able to sense partial or full pose data (orientation and position) of a second tracker in a first reference frame and the second tracker is able to sense partial or full pose data of the first tracker in a second reference frame. Pose data of first and second trackers are further transferred to a central processor 30, which is able to compute the transformation between first and second reference frame. Data generated by the trackers are such designed that they define an over-determined mathematical system (e.g. more than 6 degrees of freedom in a 3D setup). The over-determined information can be used to qualify and/or improve the transformation of the reference frame. In an embodiment of the invention, the tracking system is an optical one and the over-determined information defines an error metric used to check the validity of the transformation. Such setup could be used in surgical navigation system in order to reduce the risk of injury or death of the patient.

IPC 8 full level

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CPC (source: EP US)

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Citation (applicant)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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